Table 1. Descriptive parameters of haemodialysis study population

Baseline variables	
N	3480
Spanish region	
North	12.8% (N=6)
Center	25.5% (N=12)
Mediterranean	23.4% (N=11)
South	38.3% (N=18)
Clinics with multidisciplinary teams	
Psicotherapist	29.8% (N=14)
Nutritionist	42.6% (N=20)
Social worker	27.7% (N=13)
Age, years	69.4±2.9
Vintage	61.7±13.8
Sex, female	35.9% (N=1685)
CCI	4±0.6
CCI adjusted by age	6.6±0.8
Diabetes mellitus	39.9% (N=1864)
IMC, kg/m^2	26.6±1
LTM, kg/m^2	31.2±2.2
ATM, kg/m^2	39.4±2.8
FTM, kg	28.9±2
Laboratory	
Hemoglobin, g/dl	11.4±0.2
Albumin, g/dl	3.8±0.2
Total cholesterol, mg/dl	137.7±8.7
C-reactive protein, mg/L	12±4.8
B2MG, mg/ml	21.8±3.8
Ferritin, µg/L	560.6±207.5
Mg, mg/dl	2.1±0.1
P, mg/dl	4.3±0.3
Ca, mg/dl	9.1±0.2
Vitamin D, ng/ml	25±7.6
iPTH, pg/ml	325.9±76
Hemodialysis treatment variables	
AVF	63.8% (N=2583)
OCM Kt/V	1.8±0.1
HDFOL	51.1% (N=2568)
Average of active issues (Scores < 270 indicates optimal control)	206.9±79

vascular access with EKD score. Unexpectedly, the Charlson Comorbidity Index (CCI) showed positively correlation with PCS. Regarding negative correlations, variables as the Spanish region, the proportion of women in the clinics, body composition parameters (ATM and FTM) and serum P concentration were all associated with PCS. We also observed that EKD scores could be affected in those clinics with a higher number of active issues. Moreover, high levels of CRP or Vitamin D may lead to worsening symptoms. Interestingly, we finally observed how a higher incidence rate of COVID-19 in the region could influence the BDK score in patients receiving haemodialysis treatment.

CONCLUSION: Although further analyses are needed, our study showed the correlation of HRQoL scores obtained by ePROM with factors of great impact in patients' outcomes. According to provide a higher healthcare quality and personalized treatments for ESRD patients, an integral approach considering their HRQoL data should be essential.
Editable version available.

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MO876 B LYMPHOCYTE SUBPOPULATIONS IN END-STAGE RENAL DISEASE PATIENTS UNDERGOING RENAL REPLACEMENT THERAPY: DOES THE METHOD AFFECT THE PHENOTYPE?

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BACKGROUND AND AIMS: End-stage renal disease (ESRD) patients are considered as immunocompromised, and infections contribute greatly to their morbidity and mortality. This study focuses on the changes of B lymphocyte subpopulations in pre- and post- renal replacement therapy ESRD patients and the potential differences between haemodialysis and peritoneal dialysis.
METHOD: Using flow cytometry, B cells (CD19+) and their subsets B1a (CD19 + CD5+), naive (CD19 + CD27−), memory (CD19 + CD27+), (CD19 + BAFF-R+) and (CD19 + IgM+), were quantified in the peripheral blood of 40 pre-dialysis patients. IgG, IgA and IgM serum levels and apoptotic lymphocytes and b lymphocytes were also measured, and the measurements were repeated 6 months after the initiation of renal replacement therapy. The patients were allocated to haemodialysis (22patients, M/F 10/12, age 64,1 ± 9,8) and peritoneal dialysis (18 patients, M/F 11/11, age 56,4 ± 15,6). Exclusion criteria were age < 18 or >75 years, active autoimmune or chronic inflammatory disease, medical history of malignancy, corticosteroids or immunosuppresive treatment for the last 12 months.
RESULTS: There were no statistically significant difference between the two groups concerning the aforementioned variants pre dialysis. Collectively, ESRD patients showed no statistically significant alterations after the initiation of dialysis concerning the B cells phenotype, lymphocyte apoptosis and Immunoglobin serum levels, with the notable exception of B1a cells, which presented a decrease (3.6 ± 4.9 μ/L versus 1.6 ± 2.5 μ/L, $P = 0.022$). There seem to be no particular differences between the two methods either, with the exception of WBC count (6574 ± 1519 μ/L versus 8325 ± 2541 μ/L, $P = 0.014$) and apoptotic B lymphocytes (2 ± 2.4 μ/L versus 4.5 ± 3.9 μ/L, $P = 0.02$), which were lower in the peritoneal dialysis patients. Lastly there seemed to be no differentiation between the two methods concerning the percentage change of B lymphocytes subpopulations, lymphocyte apoptosis and IgG, IgM and IgA serum levels.
CONCLUSION: The changes that the uremic milieu causes in ESRD patients concerning their humoral Immunity do not reverse with the initiation of renal replacement therapy. Furthermore, with the exception of B cells apoptosis and WBC count, there is no significant difference between haemodialysis and peritoneal dialysis.

MO877 DYNAMICS OF SARS-COV-2-SPIKE-REACTIVE ANTIBODY AND T-CELL RESPONSES IN CHRONIC KIDNEY DISEASE PATIENTS WITHIN 3 MONTHS AFTER COVID-19 FULL VACCINATION

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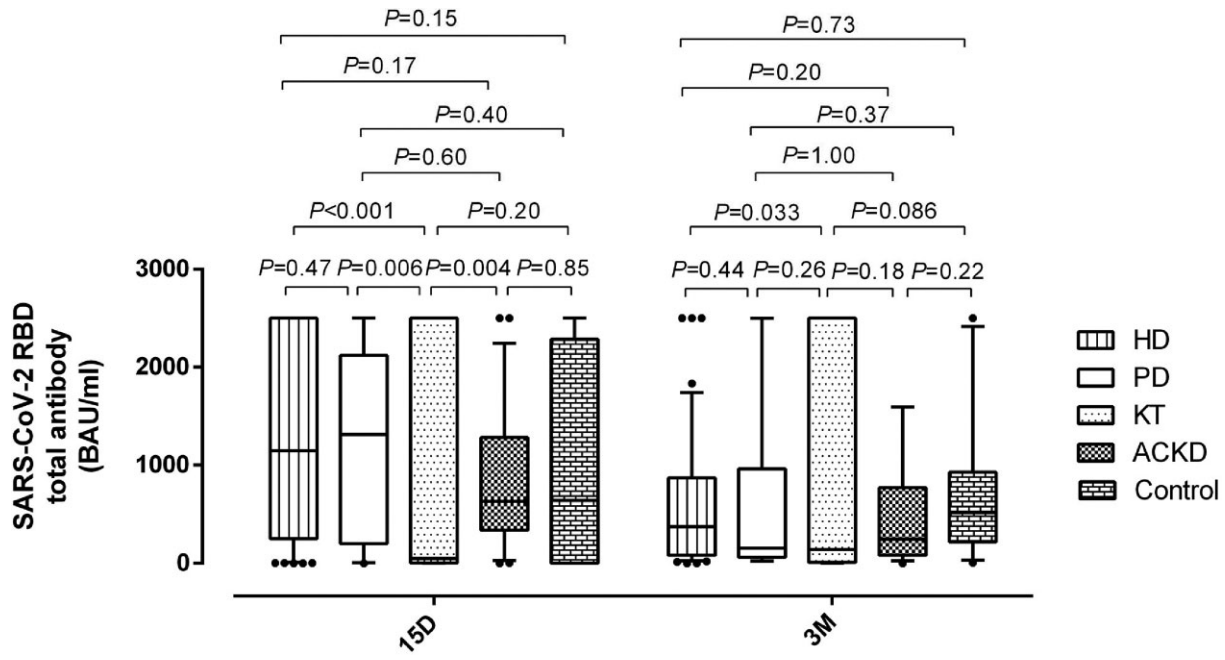
BACKGROUND AND AIMS: Little is known regarding the dynamics of antibody and T-cell responses in chronic kidney disease (CKD) following COVID-19 vaccination.
METHOD: Prospective observational cohort study including 144 participants on haemodialysis (HD) ($n = 52$), peritoneal dialysis (PD) ($n = 14$), kidney



transplantation (KT) ($n = 30$) or advanced chronic kidney disease not on dialysis (ACKD), and healthy controls ($n = 18$). Anti-Spike(S) antibody and T-cell responses were assessed at 15 days (15D) and 3 months (3M) after vaccination.

RESULTS: Anti-S antibodies at 15D and 3M were detectable in 95% (48/50)/98% (49/50) of HD patients, 93% (13/14)/100% of PD patients, 67% (17/26)/75% (21/28) of KT patients and 96% (25/26)/100% (24/24) of ACKD patients. Rates for healthy controls were 81% (13/16)/100% (17/17). Antibody levels decreased at 3M in HD ($P = 0.04$), PD ($P = 0.008$) and ACKD patients ($P = 0.0009$). In KT, patients levels increased ($P = 0.04$) between 15D and 3M, although they were low at both time points.

Detectable T-cell responses notably increased at 3M in HD patients ($P < 0.022$). In PD, patients response increased by 15D (13/14; 93%) and 3M (9/9; 100%), while they were present in KT patients at 41% (12/27), 84% (22/26) and 96% (25/26) at baseline. Detectable T-cell responses in ACKD patients reached 80% (20/25) and 89% (17/19) at 15D and 3M, respectively. whereas in healthy controls it was 67% and 89% at 15D and 3M.

CONCLUSION: Most HD, PD and ACKD patients develop SARS-CoV-2-S antibody responses comparable to that of healthy controls, in contrast to KT recipients. Antibody waning at 3M was faster in HD, PD, ACKD patients. No differences in SARS-CoV-2 T-cell immunity responses were noticed across study groups.

MO878 DOES HAEMODIAFILTRATION VERSUS HAEMODIALYSIS HAVE CLINICAL BENEFITS FOR COVID-19 SEVERITY AND MORTALITY IN MAINTENANCE HAEMODIALYSIS PATIENTS?

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BACKGROUND AND AIMS: It has been demonstrated that online haemodiafiltration (HDF) provides higher clearance of middle molecular solutes compared with high-flux haemodialysis (HD) due to its convective component and may improve clinical outcomes in maintenance haemodialysis patients. However, the clinical superiority of HDF compared with standard HD is still controversial. Moreover, there is a general lack of these data on the current topic in patients infected with COVID-19. The present study aimed to prospectively analyze whether HDF has benefits for COVID-19 severity and mortality in maintenance haemodialysis patients.

METHOD: A total of 340 maintenance haemodialysis patients aged 53.5 ± 12.9 years and a median dialysis vintage of 40 (24–74) months were included in this prospective multicentre cohort study conducted across 5 dialysis centers. All patients were not infected with COVD-19 at the time of the enrollment and subsequently followed up from March 2020 to September 2021 (the mean duration was 7 (4.2–15.4) months). The study outcomes were COVID-19-associated hospitalization needs due to supplemental oxygen requirements and COVID-19-associated mortality.

The data were presented as the mean and the standard deviation (M ± SD) or the median and the interquartile ranges [Me (Q25–Q75)] and compared using the Student's *t*-test or the Mann–Whitney *U*-test as appropriate. The Chi-squared test was used to determine the differences between categorical variables. The univariate logistic regression analyses were performed to evaluate the predictive factors for COVID-19-associated severity and mortality. Then, the Cox proportional-hazards regression model was carried out using the factors found to be significant by the univariate analysis.

RESULTS: Among the enrolled patients, there were 312 (91.7%) patients on HDF and 28 (8.3%) patients treated with HD. Sex ($\chi^2 = 1.12$ $P = 0.29$), age (55.3 ± 12.9 versus 59.6 ± 12.5 years; $P = 0.07$) and dialysis vintage [40 (23–72) versus 45 (29–84) months; $P = 0.39$] did not differ between the HDF and the HD groups at the study entry. During the follow-up period, 98 out of 312 (31.4%) of the HDF patients and 16 out of 28 (57.1%) of the HD patients were infected with COVID-19 ($\chi^2 = 9.6$; $P = 0.001$). Among them, there were 54 out of 98 (55.1%) of the HDF patients and 12 out of 16 (75%) of the HD patients who required hospitalization with oxygen

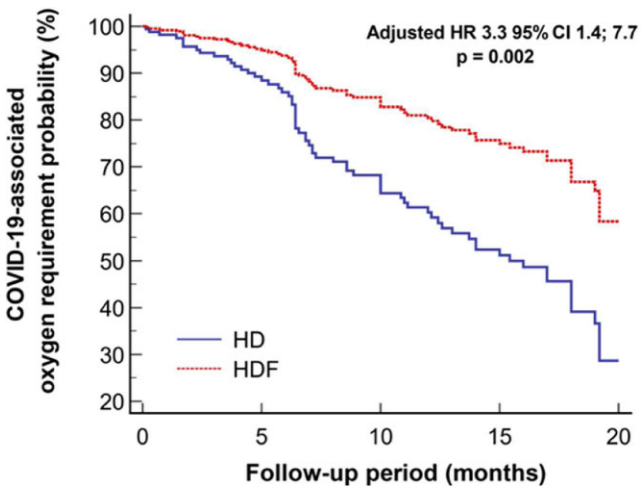

FIGURE 1: Probability curves of COVID-19-associated hospitalization with oxygen supplementation (adjusted for age, diabetic status, dialysis vintage and blood flow) in the HDF patients compared with the HD patients.